

REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated June 23, 2003, are respectfully requested.

I. Substance of Interview

Applicant's representatives thank the Examiner for the August 5, 2003, interview during which the Examiner agreed to withdraw the finality of the June 23, 2003, Office Action. Finality was withdrawn because original independent claims 1 and 19 were rejected based on new references.

II. Amendments

Claim 19 has been cancelled. Dependent claim 20 has been amended to depend from claim 1 and now recites a "removable storage device." (See e.g., Specification at page 5.) Dependent claim 21 has been amended to depend from claim 1 and now recites that the "downloading is dependent on answers provided during the completion of online problems or exercises." (See e.g., Specification at page 11.) Various minor amendments have been made to improve readability.

Independent claims 1, 15, 16, 22, and 25 have been amended. More specifically, claims 1, 15, 16, 22, and 25 have been amended to recite, *inter alia*, providing access to an online educational course using "a browser-type application," or similar language. (See, e.g., Specification at page 9 and Figures 5-10.)

Claims 1, 15, 16, 22 have been amended to recite "providing online course material via the computer network," or similar language. Similarly, Claim 25 has been amended to recite a first portion for displaying online course material, wherein the online course material is provided by the server computer via the computer network in response to a request by the browser-type application." (See e.g., Specification at page 10 and original claim 10.)

Claims 1, 15, 16, 22, and 25 have been amended to recite that the executable applications are stored on and executed from "a storage device at the client computer,"

or similar language. (See e.g., Specification at page 6 and Figure 2.) These claims have also been amended to recite that at least a portion of the executable applications or executable code is "downloaded onto the client computer at the same time the online course material is provided" or similar language. (See e.g., Specification at page 8.)

Claims 1, 15, 16, 22, have been amended to recite "a virtual picture frame application at the client computer, wherein the virtual picture frame application is distinct from the browser interface of the browser-type application, wherein the virtual picture frame application is stored and executed on the client computer, wherein the virtual picture frame application causes a display of a virtual picture frame on at least one of the one or more pages for presenting information for remote educational courses, wherein the virtual picture frame includes one or more links to the executable applications stored at the storage device at the client computer and one or more links to course-related online information accessed over the public computer network, and wherein the virtual picture frame may display online information, information from the one or more executable applications, or a combination of both," or similar language. Claim 25 has been amended to recite "a second portion for displaying a virtual picture frame" that "may display online information, information from the one or more executable applications, or a combination of both" and that is "distinct from the browser interface of the browser-type application." (See e.g., Specification at pages 7 and 8.)

III. Rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103

The Examiner rejects claims 1, 7-14, 19, and 25 under 35 U.S.C. § 102(b) as being anticipated U.S. Patent No. 5,727,950 to Cook et al. ("Cook"). The Examiner rejects claims 2-3, 15, 16, 21, 22, and 24 under 35 U.S.C. § 103(a) as being unpatentable over Cook, or over Cook in view of U.S. Patent Application No 6,505,031 to Slider et al. ("Slider"). Applicant respectfully traverses these rejections.

A. Embodiments of the Claimed Invention

Applicant's technique involves providing information, such as course material, to a user. During the presentation of the course to the user, some of the information is

provided online via a network connection and some of the information may be accessed via executable applications. Online information can include, for example, information such as textual course materials and problems or online exercises that the student can complete while working online. Online information is provided by a server computer via a computer network in response to a request by a browser-type application. Executable applications can include, for example, "Assessor" programs related to a course. (See Specification at page 10.) Links to such executable applications on the client computer are provided in a virtual picture frame that surrounds web content or other information that is displayable within the virtual picture frame. For example, a browser-type window displayed in conjunction with the virtual picture frame may display online information, information from the executable application, or a combination of both.

Some of the executable applications may be downloaded during a portion of the course where the user is presented with online course material so that the large applications are accessible via the virtual picture frame when the user is ready for them. In this way, the user can avoid having to stand by idly while large applications are downloaded. For example, a user may be participating in answering an online problem set while information in the form of an executable application is downloaded at the client computer.

B. The Applied References

Cook describes an agent-based instruction system ("ABI") for interactive computer-assisted instruction. By "interactive," Cook means that the "Agent" of the agent-based system functions as a tutor for the student to present course information dynamically. While Cook describes that information may be passed back and forth between a client and server at the beginning and end of each learning session, Cook's system is not interactive in the sense that users are being continuously presented with online course materials while they are at a client computer. Instead of being "online," Cook describes that learning materials are presented to students using Executive Software ("ES") 602 and a Session and Screen Manager 603 running on the client.

(Cook at 15:28-46; 34:8-27.) The Examiner compares the features provided by Cook's ES software to Applicant's virtual picture frame. However, as discussed below, these features are not the same.

The ES consists of a number of components that, together, customize the operating system to perform techniques associated with the computer-assisted instruction. For example, the ES provides a preferred animation facility and controls client startup. The session and screen Manager component 603 partitions the task screen into various "areas" as illustrated in Figure 3 and Figure 1. The task screen provides a visual interface for users of the interactive computer-assisted instruction system. A summary of task screen areas (described in Cook at 24:20 – 26:34) is provided in the following table:

Area Name	Description
System Area 302	Presents objects visualized as icons permitting the student to easily access ABI system facilities.
Materials Area 304	Area where instructional materials, tools, and communications materials display their content; includes Section Tabs 312, Page Buttons 321, and Student Actions Toolbar 317.
Agent Area 303	Displays objects selected an Agent component; allows the student to enter meta-requests and allows the agent to display synchronous or asynchronous meta-responses.
Student Customization Area 305	Area where a student can display objects given by the agent as rewards for student accomplishment.
File System Toolbar 306	Displays accessible files as icons in a "book-on-shelf" metaphor.
Toolbar 310	Provides access to various tools the student has access to (e.g., calculator, word processor, etc.).

Table 1: Task Screen Areas

C. Analysis

All of Applicant's claims recite, *inter alia*, providing course material using a virtual picture frame, and more specifically, providing course material using a virtual picture frame along with "a browser interface of the browser-type application," or similar language. (See, e.g., Specification at page 9 and Figures 5-10.) This distinguishes Applicant's virtual picture frame from a standard browser type interface.

Applicant's virtual picture frame is very different from the display described by Cook and illustrated in Figure 3. As Applicant's claim's now clarify Applicant's technique provides course material using a combination of the browser interface and the virtual picture frame. While Cook discloses a task screen partitioned into areas, Cook does not disclose such a virtual picture frame used in combination with a browser interface. To the contrary, Cook's only described use of a browser is to access the downloadable ES and other system components and data. Once these components are downloaded, the substance of the student session commences without use of additional online information provided using a browser interface. Accordingly, Cook has no use for a virtual picture frame that is used in conjunction with a browser-type interface.

In addition, Cook does not describe anything similar to Applicant's virtual picture frame application which causes a display of a virtual picture frame on at least one of the one or more pages for presenting information for remote educational courses. For example, Applicant's virtual picture frame includes "one or more links to the executable applications stored at the storage device at the client computer and one or more links to course-related online information accessed over the public computer network" and may "display online information, information from the one or more executable applications, or a combination of both." As shown in the table above, Cook's task screen areas do not include these elements. Slider also fails to describe Applicant's virtual picture frame or virtual picture frame application.

Applicant's claims also clarify that at least some of the executable applications accessible by links on the virtual picture frame (via storage at the client computer) are downloaded onto the client computer at the same time the online course material is provided. Whether viewed alone or in combination, neither Cook nor Slider provides this feature, and their respective systems, as described, would be unable to support such a feature.

A benefit of providing Applicant's claimed virtual picture frame is that it provides a way to integrate highly-interactive, real-time, Internet-style information (provided online via the network using the browser-type application) with information from course-specific executables stored and executed at the client computer. For example, a browser-type window displayed in conjunction with the virtual picture frame may display online information, information from an executable application, or a combination of both. In this way, Applicant's technique provides both networked interactivity and depth of information needed for remote learning without the use of Java Applets or JavaScript applications that require interpretation by a browser. Accordingly, Applicant's technique avoids browser incompatibility problems that may arise when using Java Applets or JavaScript applications. Another benefit is that Applicant's technique is more efficient than learning systems that rely primarily on executables running on a server computer, as delays that result from generating and transmitting client computer requests, running executables on the server, and transmitting the resulting requested information are avoided. In addition, because a portion of the executable applications may be downloaded onto the client computer at the same time the online course material is provided to the user, Applicant's technique provides a further advantage of significantly reducing "downtime" while a user waits for applications to be downloaded to storage on the client computer.

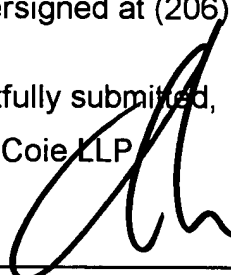
Overall, none of the applied references, either singly or in any motivated combination, teach or suggest the features recited in independent claims 1, 15, 16, 22, and 25 thus such claims are allowable. Because these independent claims are allowable, based on at least the above reasons, the claims that depend from them are

likewise allowable. If the undersigned attorney has overlooked relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found. In view of the foregoing, the claims pending in the application comply with the requirements of 35 U.S.C. § 112 and patentably define over the applied art. A Notice of Allowance is, therefore, respectfully requested. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-3599.

Date: _____

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